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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/283,125	03/31/1999	BERNIE PAUL PEARCE	112025-0116	9537

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CESARI AND MCKENNA, LLP  
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BOSTON, MA 02210

EXAMINER

HOM, SHICK C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 12/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/283,125

Applicant(s)

PEARCE ET AL.

Examiner

Shick C Hom

Art Unit

2666

70

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/31/99, 1/14/00.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2666

**DETAILED ACTION**

***Specification***

1. The abstract of the disclosure is objected to because in the abstract lines 9 and 17, spell out the acronyms ----Route Information Field RIF--- and ---Address Resolution Protocol ARP-- - the first time they're used for clarity. Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities: in page 2 lines 4-5 update status of application by Pearce et al.

Appropriate correction is required.

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Art Unit: 2666

***Claim Objections***

4. Claims 1 and 10-14 are objected to because of the following informalities: in claims 1 and 11 line 1, claims 12-14 line 2, and claim 10 line 3 delete "an SRB" and insert ---a Source Route Bridge (SRB)---, for clarity. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 12 lines 5, 6 and claim 13 lines 6, 7 which recite "said station" is not clear as to whether it is reciting --said destination station--- or ---said each station--- of claim 1 lines 1-2 and 4, claim 12 lines 2 and 4, and claim 13 lines 3 and 5, respectively. In claim 5 line 2 which recite "a station" is not clear as to whether it is reciting ---said station--- of claim 1 line 4. In claim 5 line 3 which recite "said packet" is not clear as to whether it is reciting ---said message packet--- of claim 1 line 9 or ---one of said packets---

Art Unit: 2666

of claim 1 line 4. In claims 10 and 12 line 9, claims 11 and 13 line 10, and claim 14 line 7 which recite "a RIF" is not clear as to whether it is reciting ---said RIF--- of claim 10 line 6, claims 11 and 12 line 7, and claim 13 line 8, and claim 14 line 5, respectively. In claim 11 line 3 which recite "a router" is not clear as to whether it is reciting ---said router--- of claim 11 line 1. In claim 11 line 11 which recite "said destination station" lacks clear antecedent basis because no destination station have been previously recited in the claim and therefore the limitation is not clearly understood. In claim 13 line 4 which recite "a router" is not clear as to whether it is reciting ---said router--- of claim 13 line 1.

Claims 2-4, 6, 7, 8, 9, and 15-23 are rejected under 35 U.S.C. 112, second paragraph because they depend from rejected claims 1, and 10-14.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

Art Unit: 2666

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made. This application currently names joint inventors. In

considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103<sup>®</sup> and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 2, 4, 5, and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bingham et al. in view of Hashimoto.

Bingham et al. disclose nearly all the subject matter now claimed. Note Figs. 9-11 which shows the source route bridge and the process of building the Inter-LAN virtual Workgroup table and col. 12 line 23-39 which recite the source route bridge having token-ring LAN attached devices attempting to communicate passing

Art Unit: 2666

message addressed to the IP address of token-ring LAN including the step of building IP Address Resolution Protocol (ARP) request with the destination IP address which includes a "routing information field," which records the path of the explorer frames through the source route bridges in the network clearly anticipate the method of routing a packet to a Source Route Bridge SRB subnet for a destination station including the use of an Address Resolution Protocol and Routing Information Field RIF as in claims 1, 10-14, the Explorer request packet as in claims 2, 4, 5, and the Internet Protocol IP communication session as in claim 15. Further, col. 12 lines 40-54 which recite that when the source route bridge receives the explorer frame, source route bridge adds its bridge # and the next ring # to the frame before forwarding it to the next ring; it then retransmits the enlarged explorer frame onto token-ring LAN segment clearly anticipate writing routing information into the message packet before routing the packet as in claims 1, 10-14. Further, col. 2 lines 50-55 which recite the use a look-up table to convert the OSI Level 3 address into its OSI Level 2 equivalent and col. 9 lines 31-44 which recite the entry into the created Virtual Workgroup Table of a MAC Address clearly anticipate table entry having a Layer 3 address of the station

Art Unit: 2666

and entry having a second field containing a Layer 2 address of the station including the physical MAC address as in claims 1, 10-14.

Bingham et al. did not recite maintaining an ARP table in a router having entry including RIF information as in claims 1 and 10-14.

Hashimoto teaches that it is known to provide a routing/APR table as set forth at col. 3 lines 31-39 in the field of digital and multiplex communications for the purpose of providing a hot standby bridge or router with reduced time required to switch a master system to a slave system which clearly anticipate the step of maintaining an ARP table in a router having entry including RIF information as in claims 1 and 10-14.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the step of maintaining an ARP table having entry including RIF information as taught by Hashimoto to the system of Bingham et al. because Hashimoto teach the desirable advantage of providing a hot standby bridge or router and said hot standby bridge or router being desirable to achieve more reliable system operation in Bingham et al.

Art Unit: 2666

8. Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bingham et al. in view of Hashimoto as applied to claims 1 and 10-14 above, and further in view of Leong et al.

Bingham et al. in view of Hashimoto did not recite Layer 3 address including the address for an Appletalk, connectionless mode network service communication, DECnet, IPX, XNS, and Vines communication session as in claims 16-21.

Leong et al. teach that it is known to provide routers with a Simple Network Management Protocol SNMP having a manager, an agent, and a management information base MIB characterized as a request-response protocol whereby the agent generally acts gather information about its own device's internal workings and the network and stores the information in the MIB and using a connectionless protocol the manager requests and obtains information from the MIBs wherein the information obtained are the protocol types: (1) Internet Protocol (IP); (2) DECnet protocol (DN); (3) Xerox Network System (XNS ); (4) AppleTalk (AT); (5) Novell Internet Packet Exchange (IPX ); and (6) Banyan VINES as set forth at col. 1 line 56 to col. 2 line 11 and col. 9 lines 43-47 in the field of digital and multiplex communications for the purpose of providing the added feature of managing and

Art Unit: 2666

monitoring routers for overseeing the operations and overall health of the network which clearly anticipate the Layer 3 address including address for an Appletalk, connectionless mode network service communication, DECnet, IPX, XNS, Vines communication session as in claims 16-21.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Layer 3 address including the address for an Appletalk, connectionless mode network service communication, DECnet, IPX, XNS, and Vines communication session as taught by Leong et al. to the system of Bingham et al. in view of Hashimoto because Leong et al. teach providing the desirable cumulative features of managing and monitoring routers for overseeing the operations and overall health of the network in Bingham et al. in view of Hashimoto.

9. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bingham et al. in view of Hashimoto as applied to claims 1 and 10-14 above, and further in view of Hrastar et al.

Art Unit: 2666

Bingham et al. in view of Hashimoto did not recite using a FLASH memory to store data received by a processor from a network connection for maintaining the ARP table as in claims 22 and 23.

Hrastar et al. teach that it is known to load data and programs received in IP packets via cable or telephone line into Flash RAM as shown in Fig. 5 including the step of executing the ARP protocol, which translates an IP address into a link-level address of the link-level network that the host is connected to and the use of an ARP cache, which is a table of the current mappings between IP addresses of hosts in the link-level network and the link-level addresses of those hosts as set forth at col. 16 line 37 to col. 17 line 2 in the field of digital and multiplex communications for the purpose of providing the added feature of hierarchical displays for network management in order to make better decisions regarding causes and effect of anomalies in the network and improving understanding of the network for growth planning, potential failure scenarios, routing diagnostic tests, maintenance and the like which clearly anticipate using a FLASH memory to store data received by a processor from a network connection for maintaining the ARP table as in claims 22 and 23.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a FLASH memory

Art Unit: 2666

to store data received by a processor from a network connection for maintaining the ARP table as taught by Hrastar et al. to the system of Bingham et al. in view of Hashimoto because Hrastar et al. teach the desirable cumulative features of providing hierarchical displays for network management in order to make better decisions regarding causes and effect of anomalies and improving understanding for growth planning, potential failure scenarios, routing diagnostic tests, maintenance and the like of the network in Bingham et al. in view of Hashimoto.

***Allowable Subject Matter***

10. Claims 3 and 6-9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. .

Millet et al. disclose an IP network for accommodating mobile users with incompatible network addressing.

Art Unit: 2666

Hashimoto discloses an automatic address setter capable of determining a network address of a host station.

12. Any response to this final action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (2600 Receptionist at (703) 305-4750).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742. The examiner's regular work schedule is Monday to Friday from 8:00 am to 5:30 pm EST and out of office on alternate Friday.

Art Unit: 2666

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao, can be reached at (703) 308-5463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

A handwritten signature in cursive script, appearing to read "Shih Hom".

SH

December 7, 2002